Remarks

Applicants have cancelled claims 1, 26, 28, and 29, without prejudice. Applicants have added new claims 30-49. A clean version of the new claims is attached hereto.

Applicants respectfully assert that all amendments are fairly based on the specification, and respectfully request their entry.

Respectfully submitted,

Robert F. Chisholm, 39,939
Attorney for Applicants

Amersham Biosciences Corp
800 Centennial Avenue
P. O. Box 1327
Piscataway, New Jersey 08855-1327

Tel: (732) 980-2930
Fax: (732) 457-8463

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on August 5, 2002.

Melissa Leck
Signature
Date August 5, 2002

Claims (clean version of new claims)

30. (new) A method of generating enhanced cardiac images of a human or non-human animal subject which comprises the steps of:

    i) injecting a physiologically acceptable aqueous medium having gas dispersed therein into the vascular system of said subject;

    ii) before, during or after injection of said aqueous medium administering to said subject a composition comprising a diffusible component capable of diffusion *in vivo* into said dispersed gas so as to promote controllable growth and temporary retention of said dispersed gas within tissue microvasculature in said subject; and

    iii) generating one or more ultrasound images of at least a part of the heart of said subject, at least one such image being generated after said subject has undergone physical exercise-induced stress.

31. (new) A method as claimed in claim 30 wherein the composition comprising the diffusible component is administered cutaneously, subcutaneously, intramuscularly, intravenously or by inhalation.

32. (new) A method as claimed in claim 30 wherein preliminary localised ultrasound is applied to induce said increase in size of the dispersed gas.

33. (new) A method as claimed in claim 32 wherein colour Doppler imaging ultrasound is employed as said preliminary localised ultrasound.

34. (new) A method as claimed in claim 30 wherein the dispersed gas is selected from the group consisting of air, nitrogen, oxygen, carbon dioxide, hydrogen, inert gases, sulphur fluorides, selenium hexafluoride, optionally halogenated silanes, low molecular weight hydrocarbons, ketones, esters, halogenated low molecular weight hydrocarbons and mixtures of any of the foregoing.

35. (new) A method as claimed in claim 34 wherein the gas is selected from the group consisting of perfluorinated ketones, perfluorinated ethers and perfluorocarbons.

36. (new) A method as claimed in claim 35 wherein the perfluorocarbon is selected from the group consisting of perfluoroalkanes, perfluoroalkenes and perfluorocycloalkanes.

37. (new) A method as claimed in claim 34 wherein the gas is selected from the group consisting of sulphur hexafluoride, perfluoropropane, perfluorobutanes and perfluoropentanes.

38. (new) A method as claimed in claim 30 wherein the dispersed gas is stabilised by a coalescence-resistant surface membrane, a filmogenic protein, a polymer material, a non-polymeric and non-polymerisable wall-forming material or a film-forming surfactant material.

39. (new) A method as claimed in claim 38 wherein said film-forming surfactant material comprises at least one phospholipid.

40. (new) A method as claimed in claim 39 wherein at least 75% of the said film-forming surfactant material comprises phospholipid molecules individually bearing net overall charge.

41. (new) A method as claimed in claim 40 wherein at least 75% of the film-forming surfactant material comprises one or more phospholipids selected from the group consisting of phosphatidylserines, phosphatidylglycerols, phosphatidylinositols, phosphatidic acids and cardiolipins.

42. (new) A method as claimed in claim 41 wherein at least 80% of said phospholipids comprise phosphatidylserines.

43. (new) A method as claimed in claim 30 wherein the composition comprising the diffusible component further comprises a carrier liquid.

44. (new) A method as claimed in claim 43 wherein the diffusible component is dispersed in an aqueous carrier liquid in the form of an oil-in-water emulsion or microemulsion.

45. (new) A method as claimed in claim 44 wherein the diffusible component is selected from the group consisting of aliphatic ethers, polycyclic oils, polycyclic alcohols, heterocyclic compounds, aliphatic hydrocarbons, cycloaliphatic hydrocarbons and halogenated low molecular weight hydrocarbons.

46. (new) A method as claimed in claim 45 wherein the diffusible component comprises a perfluorocarbon.

47. (new) A method as claimed in claim 46 wherein the perfluorocarbon is selected from the group consisting of perfluoroalkanes, perfluoroalkenes, perfluorocycloalkanes, perfluorocycloalkenes and perfluorinated alcohols.

48. (new) A method as claimed in claim 47 wherein the diffusible component is selected from the group consisting of perfluoropentanes, perfluorohexanes, perfluorodimethylcyclobutanes and perfluoromethylcyclopentane.

49. (new) A method as claimed in claim 48 wherein the emulsion is stabilised by a phospholipid surfactant.